

REMARKS/ARGUMENTS

This communication is in response to the Non-Final Office Action dated April 30, 2008. Claims 2, 4-9 and 11 have been canceled, without prejudice. Claims 1 and 12 have been amended. No new matter has been added. Claims 1, 3, 10 and 12 remaining pending in this application, with claims 1 and 12 being the only independent claims. Reconsideration in view of the arguments presented below is respectfully requested.

Objections to the Claims

The Examiner rejected claims 1, 8, 11 and 12 for several informalities. Claims 8 and 11 have been canceled, without prejudice, and thus the objection with respect to these claims is now moot. Applicants have amended claims 1 and 12 in accordance with the Examiner's suggestions. Accordingly, withdrawal of the objections in view of the amendments to the claims is therefore requested.

Claim Rejections under 35 U.S.C. 112, 1st paragraph

Claims 1, 3, 5 and 8-12 are rejected as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the Examiner asserts "independent claims 1, 8, 11 and 12 recite 'improving a neural network prediction...based on whether the input data record is in a working range of a neural network.'" As best understood by Applicants, the Examiner's reasoning is that the term "improving" does not accurately reflect the improvement and thus similar to the objections to the claims asserted above, should be amended to read "making." Claims 5 and 8-11 have been canceled, without prejudice, and thus the rejection with respect to these claims is now moot. Claims 1, 3 and 12 have been amended in accordance with the Examiner's suggestion to state "making" rather than "improving" and thus withdrawal of the rejections under 35 U.S.C. §112, first paragraph, is requested.

Claim Rejection under 35USC § 112, 2nd paragraph

The Examiner rejected claims 1, 3, 5, and 8-12 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the

invention. These claims are rejected on similar grounds to that disclosed above with respect to the rejection of 35 U.S.C. §112, first paragraph. In view of the amendments to the claims in accordance with the Examiner's suggestion wherein the term "making" has been substituted for the term "improving" Applicants submit that the rejections under 35 U.S.C. §112, second paragraph, have been overcome and therefore should be withdrawn.

Allowable Subject Matter

Dependent claim 3 was not rejected in view of any prior art references. Accordingly, Applicants assume that dependent claim 3 contains allowable subject matter that would be in condition for allowance if amended to overcome the outstanding rejections under 35 U.S.C. §112, 1st & 2nd paragraphs, as well as if rewritten in independent form to include the limitations of the base claim and all intervening claims.

Prior Art Claim Rejections

Claims 1, 8, 9, 10, 11 and 12 are rejected under 35 U.S.C. §103(a) as obvious over Zakrzewski (U.S. Patent No. 7,203,716) in view of Budinich et al. (publication entitled "Feed-forward neural networks: a geometrical perspective" (1991)).

Independent Claim 1

Step (vi) of claim 1 calls for "checking whether a second simplex (S_{t+1}) which contains the intersection point and a section of the path can be formed from the number of points from the training input data records." (emphasis added) In rejecting claim 1, the Examiner maintains that Zakrzewski's disclosure of "the next simplex" (Col. 6, ll. 52-56) reads on step (vi). Once again Applicants respectfully disagree. Zakrzewski teaches:

"If the determination at step 34 is such that the point of interest...is not within the simplex or is not on the boundary of the simplex, control proceeds to step 40 where the next combination of $n+1$ data points is selected to form the vertices of the next simplex to be tested. At step 42, a determination is made as to whether all combinations of points have been processed indicating that all simplices have been tested. If not, control proceeds to step 22 for the next loop iteration

using the next selected simplex. If all simplices have been processed, it means that no candidate simplex tested contains...[the point of interest], and control proceeds to step 44 to take an alternate action. Alternate actions are discussed in more detail in following paragraphs.” (Col. 6, ll. 52-64)(emphasis added)

Therefore, this passage of Zakrzewski discloses that in step 34 if the point of interest is not within the simplex or not on the boundary of the simplex, operation advances to step 40 where the next combination of $n+1$ data points is selected to form the vertices of the next simplex to be tested. There is no disclosure or suggestion of the “next simplex” as checking whether it “contains the intersection point and a section of the path,” as required in claim 1. Furthermore, in step (vi) the second simplex which contains the intersection point and a section of the path is formed from the same number of points from the training input data records as previously used in steps (i) & (ii) to form the first simplex, whereas in Zakrzewski the “next simplex” is formed by the “next combination of $n+1$ data points” than those data points used to form the first simplex.

Independent Claim 12

As for independent claim 12, the Examiner has failed to set forth where any of the prior art references teach sub-steps (i)-(vi) stating instead that they are merely an obvious variation of sub-steps (i)-(vi) of claim 1. Specifically, the Examiner “asserts that steps (i)-(vi) are an obvious variation of step (i)-(vi) of claim 1 (see above) where the vectors used to construct the interior search set are simply normalized and thus an obvious variation of interpolation technique of Zakrzewski.” {April 30, 2008 Non-Final Office Action: p. 17, ll. 6-8} Applicants respectfully traverse the Examiner’s obviousness assertion. First, clear non-obvious distinctions exist among the sub-steps of these two claims. By way of illustrative example, sub-step (v) of claim 12 calls for the step of “deleting” whereas there is no obvious variation of such step in claim 1. If the Examiner maintains his position, Applicants request the Examiner clearly provide a prior art reference teaching that (i) the normalization of vectors reads on the sub-steps set forth in claim 12; and (ii) the normalization of vectors is an obvious variation of the interpolation technique set forth in Zakrzewski.


CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition thereof. The Assistant Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,
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